



Staff

OPHTHALMOLOGY

AARON S. GREEN, M. D.
MARTIN I. GREEN, M. D.
EINAR V. BLAK, M. D.
VINKO V. SUGLIAN, M. D.
DAVID KADESKY, M. D.
WILLIAM R. JEPSON, M. D.

OTOLARYNGOLOGY

JOHN H. CHILDREY, M. D.
ERNST WOLFES, M. D.

**Completely equipped for the surgical
and medical care of all cases pertaining
to ophthalmology and otolaryngology.**

ADDRESS ALL COMMUNICATIONS TO THE SUPERINTENDENT

GREENS' EYE HOSPITAL

BUSH STREET AT OCTAVIA • SAN FRANCISCO • TELEPHONE WESt 4300



Autolyzed Brewers' Yeast Extract with salt, added iron salt and pure vegetable flavoring. A level teaspoonful supplies 3 calories. Vegex is free of starch and sugar.

VEGEX ANALYSIS

	Per Cent
Protein (N x 6.25)...	32.6
Fat	0.8
Calories per ounce....	40
Sodium Chloride.....	11.1
Phosphorus as P.....	2.62
Potassium as K.....	2.18
Calcium as Ca.....	0.098
Iron as Fe.....	0.048
Magnesium as Mg....	0.13
Copper	0.00275
Manganese.....	Distinct Traces

B VITAMINS TESTS

Average per gram, 45 Sherman B₁ and B₂ (G) units; 800 plus International B₁ units per ounce. 3½% in a B complex free ration gives good growth, reproduction and successful rearing.

A PROVEN SOURCE of the

VITAMIN B COMPLEX

—Easily Administered

● A wealth of medical literature contributes evidence that adequate nutrition requires the whole of the vitamin B complex and that Vegex supplies it in a dependable, easily administered form. Vegex is a natural source of the whole vitamin B complex. It is separated and condensed from the cells of grain-grown brewer's yeast. Vegex has proved its efficacy both in clinical tests and in the physicians' daily practice.

Your patients will like the simple way it can be added to their diets—in hot milk, soups or broth. Vegex is easily borne, aids appetite and lactation.

Five per cent of Vegex in dried whole milk maintains a normal red blood cell count, and a normal Hemoglobin percentage.

*Send for clinical
or professional
samples.*

VITAMIN FOOD COMPANY, INCORPORATED
122 Hudson Street, New York, N. Y.

Please send me a professional sample of VEGEX.

DR.....

ADDRESS.....



**NOT
ADVERTISED
TO THE
LAITY**

MORNING MILK COMPANY

ALPHABETICAL LIST OF ADVERTISERS

Members of the California Medical Association can aid their JOURNAL and the firms who advertise therein, by coöperation as indicated in the footnote on this page

	PAGE		PAGE		PAGE
Acousticon	38	Greens' Eye Hospital.....	2 Cover	Petrolagar	45
Adams Mineral Springs.....	36	Hospital Ambulance Service.....	48	Phillip Morris & Co., Ltd., Inc.....	47
Alexander Sanatorium, Inc., The	48	Hospitals and Sanatoriums.....	10	Physicians' Casualty Association	
Alum Rock Sanatorium.....	40	Hotel Sir Francis Drake.....	10	and Physicians' Health Associ-	
American Can Company.....	35	Hynson, Westcott & Dunning,		ation	22
Arrowhead Springs Hotel and		Inc.	28	Postgraduate Instruction.....	9
Spa	20	Ingram Laboratories	28	Pottenger Sanatorium.....	44
Barry Co., The James H.....	37	Jenkel-Davidson Optical Co.....	15	Richardson Mineral Springs.....	34
Baxter, Inc., Don.....	33	Karo	49	Riggs Optical Company.....	5
Biolac	43	King Ambulance Company.....	44	Saint Francis Hospital.....	48
Bolin, M.D., Zera E., Pathologi-		La Loma Feliz.....	12	Sandoz Chemical Works, Inc.....	11
cal Service	46	Las Encinas Sanitarium.....	38	Sharp & Dohme.....	13
Borden Company, The.....	43	Lederle Laboratories, Inc.....	23	Similac	14
Broemmel's Laboratories.....	3	Lilly & Co., Inc., Eli.....	32	S. M. A. Corporation.....	21
Butler Building.....	25	Livermore Sanitarium.....	40	Smith-Dorsey Co., The.....	11
California Sanatorium.....	34	Los Angeles Tumor Institute.....	26	Smith, Kline & French Labora-	
Calso Water Company	25	Luzier's	44	tories	41
Camp & Company, H. S.....	29	M. & R. Dietetic Laboratories,		Solland, Costolow, and Meland,	
Canyon Sanatorium	22	Inc.	14	Doctors	26
Children's Hospital—Physical		Mead Johnson & Co.....	31	Squibb & Sons, E. R.....	3 Cover
Therapy Course.....	9	Medical Placement Bureau.....	38	Stacey, J. W., Medical Books.....	15
Ciba Pharmaceutical Products,		Medical Protective Co., The.....	20	St. Luke's Hospital.....	34
Inc.	39	Morning Milk Co.....	1	St. Mary's Hospital.....	39
Classified Advertisements.....	12	Morris & Co., Ltd., Inc., Philip.....	48	Stuart Oxygen Company.....	18
Coca-Cola	26	National Professional Bureau,		Summit Medical Building.....	15
Colfax School for the Tubercu-		Ltd.	7	Twin Pines.....	10
lous	50	New York Polyclinic Medical		University of California Medical	
Compton Sanitarium and Las		School and Hospital.....	9	School	9
Campanas Hospital.....	50	Noble Placement Agency.....	12	Upjohn Company, The.....	27
Cook County Graduate School of		Officers of the California Medical		Vegex	2 Cover
Medicine	9	Association.....	2, 4, 6	Vitamin Food Co.....	2 Cover
Corn Products Sales Co.....	49	Officers of Miscellaneous Medical		Warner & Co., Inc., William.....	16-17
Crocker First National Bank.....	42	Associations	6	Westinghouse X-Ray Co.....	24
Cutter Laboratory.....	4 Cover	Owl Drug Co., The.....	5	Wyeth & Brothers, Inc., John.....	7
Doctors' Business Bureau.....	3	Park Sanitarium.....	36	Yates Reporting Service.....	12
Four Fifty Sutter.....	46	Parke, Davis & Co.....	19		
French Hospital.....	30				

COÖPERATE WITH YOUR ADVERTISERS

CALIFORNIA AND WESTERN MEDICINE, the official publication of your Association, is made possible in part by reason of the coöperation of business firms and institutions who use advertising space. Their purpose is to direct attention to their products and services to present and future patrons.

Members and readers are urged to give preference to and to patronize these advertisers. When ordering goods, mention CALIFORNIA AND WESTERN MEDICINE.

This coöperation will please the advertiser, increase advertising income, and enable your Association to increase the value of this JOURNAL to members and readers.

A SERVICE AGENCY—FOR READERS

The JOURNAL of the California State Medical Association and the Coöperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital, or we will refer your request to the proper department of the A. M. A. for reply.

We invite and urge you to use this Service. It is absolutely free to every member of the California Medical Association. The Coöperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail. Perhaps you want a certain kind of instrument which is not advertised in CALIFORNIA AND WESTERN MEDICINE, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This A. M. A. Service Bureau will give you the information. Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to write direct to the Coöperative Medical Advertising Bureau, 535 N. Dearborn Street, Chicago, Illinois. CALIFORNIA AND WESTERN MEDICINE and the A. M. A. Service Bureau desire to serve you.

New!

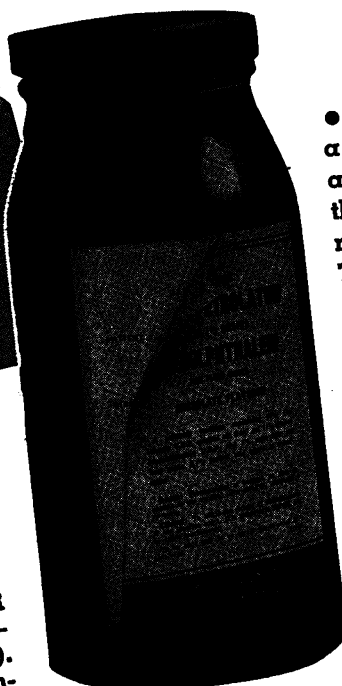
Announcing
A
**CHOCOLATE FLAVORED
EMULSION OF
LIQUID
PETROLATUM**

Council Accepted

• Emulsion of Liquid Petrolatum Chocolate Flavored is Council accepted. A PRESCRIPTION PRODUCT DESIGNED ESPECIALLY FOR THE PHYSICIAN (note prescription label on the bottle). And it may be obtained without phenolphthalein—or with 5 grains or 1½ grains to the fluid ounce.



Council
Accepted



• For patients required to take a mineral oil emulsion over any length of time—prescribe this Emulsion of Liquid Petrolatum Chocolate Flavored. There is no oily after-taste! And it has the inviting appearance and flavor of a delicious chocolate dessert. Your patients do not rebel against it! This product contains 60% Liquid Petrolatum U.S.P. and 1% agar agar.

Mail Coupon for Sample

The SMITH-DORSEY CO.
Lincoln, Nebraska.

Gentlemen: Please send me a sample of Emulsion Liquid Petrolatum Chocolate Flavored.

☐ With Phenolphthalein
☐ Plain

Dr.

Address

City State

MIGRAINE

is promptly relieved by

GYNERGEN

brand of ergotamine tartrate



"But fortunately, within the past few years, ergotamine tartrate (Gynergen)—Sandoz Company, New York—has been placed on the market and gives striking results in a large number of cases of migraine."
(Hays, Harold: Med. Times, December, 1939.)

DOSAGE: 0.5 cc. intramuscularly as early as possible. In resistant cases, the dosage may be increased up to 1 cc. In mild attacks 2 to 6 tablets often prove effective.

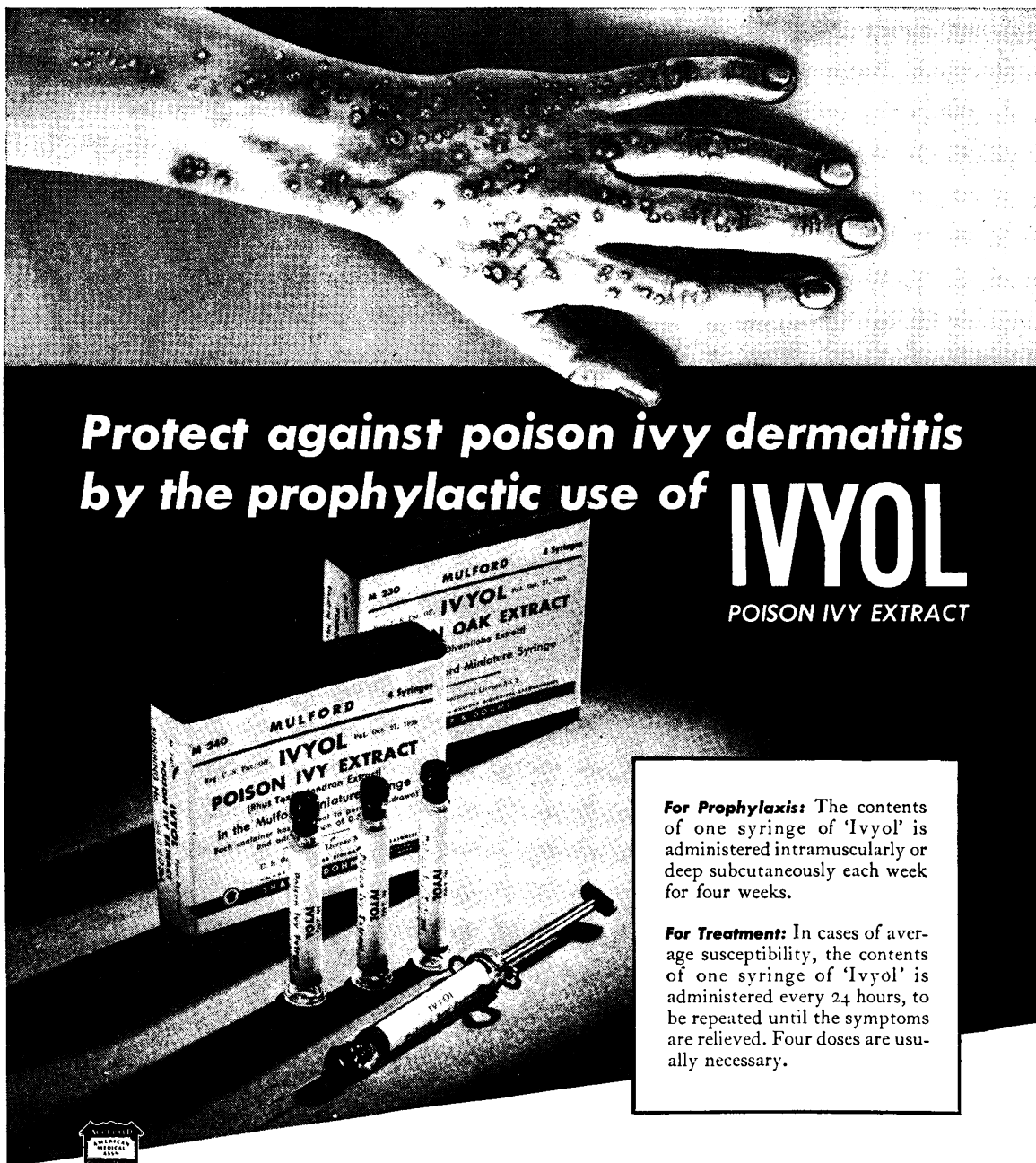
Ampules, 0.5 cc.: Boxes of 6, 50, 100.
Ampules, 1 cc.: Boxes of 6, 12, 50, 100.
Tablets: Bottles of 15, 100, 500.
Solution: Bottles of 15 cc. and 100 cc.

Literature and samples furnished upon request

SANDOZ CHEMICAL WORKS, INC.

450 SUTTER STREET

SAN FRANCISCO, CALIFORNIA



**Protect against poison ivy dermatitis
by the prophylactic use of**

IVYOL

POISON IVY EXTRACT

For Prophylaxis: The contents of one syringe of 'Ivyol' is administered intramuscularly or deep subcutaneously each week for four weeks.

For Treatment: In cases of average susceptibility, the contents of one syringe of 'Ivyol' is administered every 24 hours, to be repeated until the symptoms are relieved. Four doses are usually necessary.

With the onset of warm weather, the physician finds satisfaction in the knowledge that there are available the reliable 'Ivyol' preparations, for prophylactic and therapeutic measures in combating the dermatitis caused by poison ivy or poison oak.

'Ivyol' is supplied in two forms—'Ivyol' (Poison Ivy Extract) and 'Ivyol' (Poison Oak Extract). They are solutions of the active principles derived from poison ivy and poison oak respectively, in sterile olive-oil with 2% camphor as a preservative. Because of its olive-oil base, the administration of

'Ivyol' by deep subcutaneous or intramuscular injection is comparatively free from pain.

'Ivyol' is available in packages of one and four miniature syringes. Each syringe represents a single dose.



"FOR THE CONSERVATION OF LIFE"

Mulford Biological Laboratories

Sharp & Dohme

PHILADELPHIA

"...Casein Modified"

**Curd of
Breast Milk**

**Curd of
Cow's Milk**

**Curd of
SIMILAC**



Made from fresh skim milk
(casein modified) with added
lactose, salts, milk fat, and
vegetable and codliver oils.

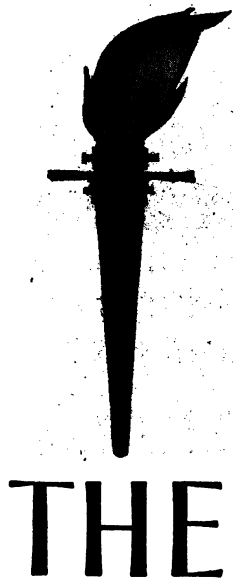
In human milk $\frac{2}{3}$ of the protein is in true solution, while in cow's milk only $\frac{1}{6}$ of the protein is soluble. During the process employed in preparing Similac the soluble proteins in cow's milk are increased to a point approximating the soluble proteins in human milk. How greatly this improves the digestibility is indicated by a comparison of the curd (insoluble calcium paracaseinate) formed by cow's milk, with the soft flocculent curd of Similac. The softer the curd the shorter the digestive period.* Similac, like breast milk, has a consistently zero curd tension.

* Espe & Dye — "Effect of Curd Tension on the Digestibility of milk" — Amer. Journal Diseases of Children — 1932, Vol. 43, p. 62.

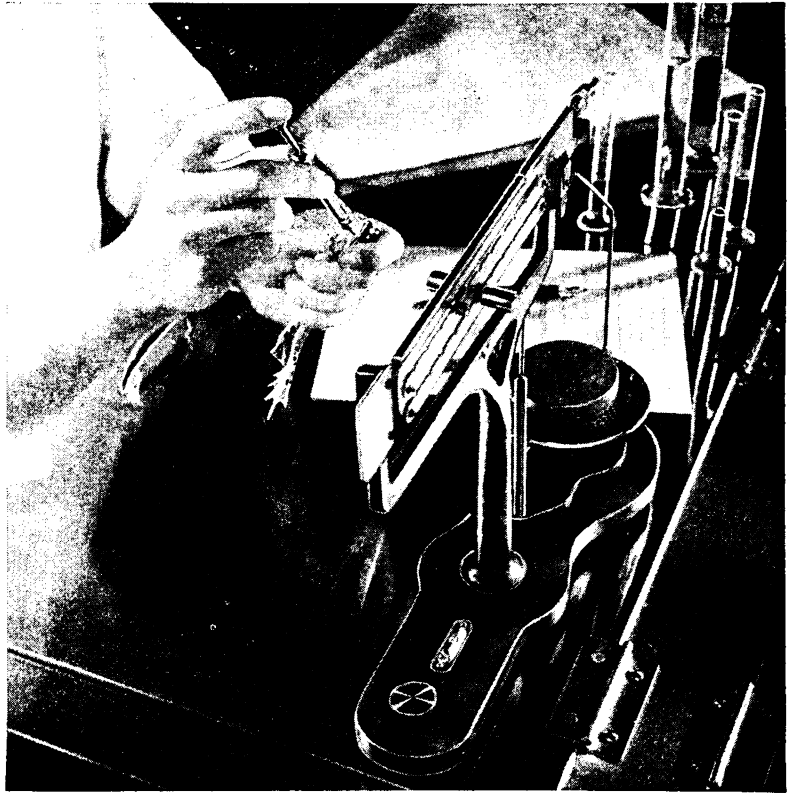
SIMILAC } SIMILAR TO BREAST MILK

M & R DIETETIC LABORATORIES, INC. • COLUMBUS, OHIO

Among the various types of laboratory animals, the frog is of no little importance in the standardization of drugs, especially when effect upon circulation needs to be observed and studied.



THE



FLAME *of* SCIENTIFIC

Chemotherapy is still in its infancy. The secrets sealed in the endocrines and biological substances challenge the scientist to uncover them. The synthesis of drugs is an ever tempting invitation to search for perfection.

Without a foundation resting on research, medicine cannot build. Without new knowledge for guidance, medicine cannot advance. In the Warner Institute for Therapeutic Research, men and women, versed in science and trained in research, are concentrating to discover better ways, safer drugs for the alleviation of human ills.

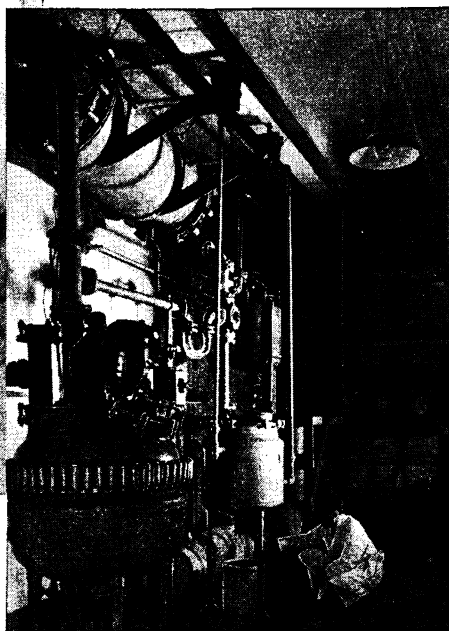


113 West 18th Street, New York, N. Y.

WILLIAM R. WARNER



A tissue section, one ten-thousandth of an inch in thickness, without distortion of the minute cellular structures, is cut by the razor-sharp knife of the microtome. This allows microscopic study of changes in animal tissues.



A miniature manufacturing plant in one room, the "Pilot Plant," translates the findings of research into production. In this plant, small quantities are made for testing purposes.

RESEARCH

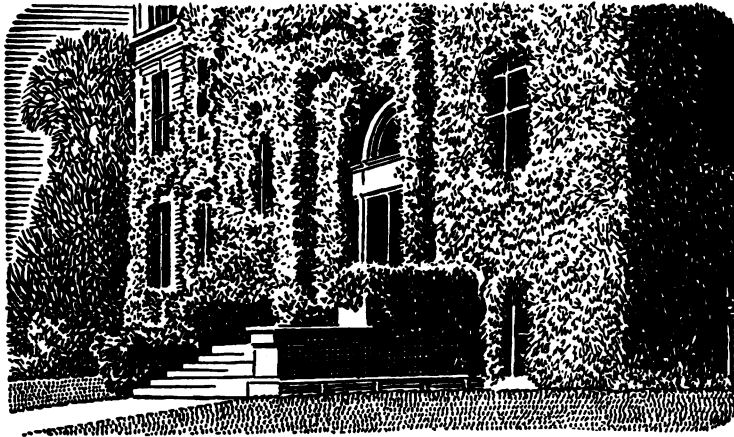
Aided by modern precision equipment, often specially devised and constructed, these men and women work, unhampered by commercial considerations, to aid medicine in its altruistic purpose, by improving existing therapeutic substances, by discovering new ones, and by enlarging our knowledge of them.

It is the privilege of William R. Warner & Co., Inc. to foster the Warner Institute for Therapeutic Research and to make available the fruit of its labors to physicians and pharmacists and, through them, to the public.

404 South 4th Street, St. Louis, Mo.

& COMPANY, INC.

A world-wide organization with laboratories and agencies in 75 foreign countries.



Research Laboratories—Parke, Davis & Company

You can't start building half-way up

Productive research is like building with brick—one fact or one experience is laid on top of another. The soundness of research accomplishment depends on the foundation underneath. You can't start building half-way up.

Parke-Davis contributions to modern medicine are familiar—among them are Adrenalin, Pituitrin, Pitocin and Pitressin, Mapharsen, Meningococcus Antitoxin. Each represents a single research project. Yet all are mortared together in a broad foundation of scientific understanding and experience. Every future Parke-Davis development will stand soundly on this structure.

PARKE, DAVIS & COMPANY



PIONEERS IN RESEARCH ON MEDICINAL PRODUCTS

CALORIE COMPUTATIONS



Moving Day—Who Packed Sonny's Cod Liver Oil?



No need to worry about cod liver oil when the feeding is S.M.A.: Vitamins A, B₁ and D are provided in S.M.A., in adequate amounts to meet the nutritional needs of normal, full-term infants:

Diluted, ready to feed, each quart of S.M.A. provides 7500 U.S.P. units vitamin A, 400 U.S.P. units vitamin D and 200 U.S.P. units vitamin B₁.

S. M. A. IS ECONOMICAL TO FEED. INFANTS RELISH IT, DIGEST IT EASILY AND THRIVE ON IT.

S. M. A. is a food for infants—derived from tuberculin-tested cow's milk, the fat of which is replaced by animal and vegetable fats including biologically tested cod liver oil; with the addition of milk sugar and potassium chloride;



altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrate and ash, in chemical constants of the fat and physical properties.

S. M. A. CORPORATION • 8100 MCCORMICK BOULEVARD • CHICAGO, ILLINOIS

*Fulfilling the essentials
of effective liver therapy—*

1cc. CONCENTRATED SOLUTION LIVER EXTRACT
(PARENTERAL)

Lederle

SINCE INDIVIDUAL PATIENTS with Pernicious Anemia vary one from another and from time to time in the amount of liver extract needed, no dogmatic statements can be made as to dosage. Every patient should receive at least enough of the material to maintain a normal blood picture. "Lederle's 1 cc." extract usually meets such requirements when injected at intervals of 7 to 15 or more days.

For the successful treatment of severe neurologic involvement much more extract is indicated than is required for the maintenance of normal blood. An excess of liver is useful to the extent that it may be stored in the body reservoirs and drawn upon as needed.

Neurological complications and relapse need not develop once the patient's cooperation is gained. Lederle's 1 cc. concentrated solution liver extract, containing 15 USP units, aids in gaining this cooperation by

- fewer injections;
- less discomfort;
- less inconvenience.

OBTAINABLE IN PACKAGES OF THREE 1 CC. VIALS.

Literature on Request

LEDERLE LABORATORIES, INC.
30 ROCKEFELLER PLAZA NEW YORK, N.Y.

San Francisco: 450 Sutter St. Los Angeles: 714 W. Olympic Blvd.
Lederle Laboratories Depot, 1216 S. W. Stark St., Portland, Oregon

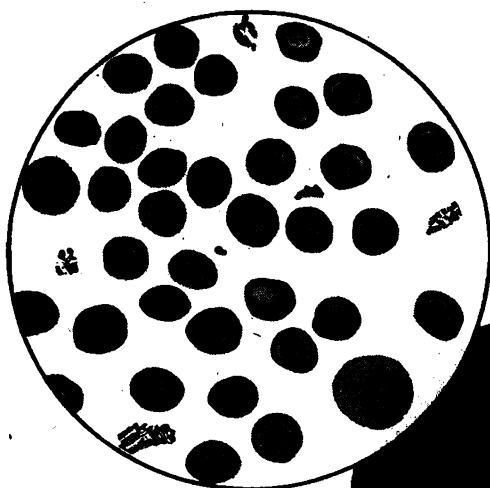


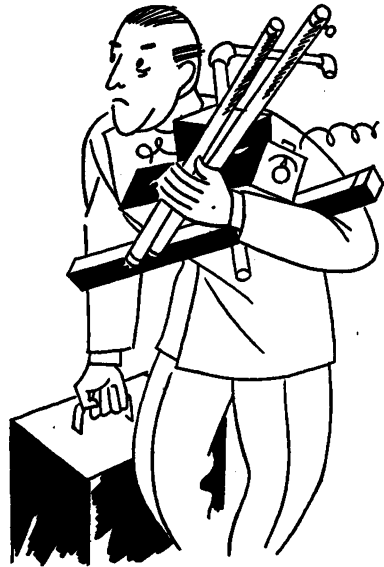
Illustration shows blood smear from patient who has received adequate liver therapy for a period of two years. Both the red and white blood cells are normal in contour and size. Hemoglobin is normal or above and platelets are abundant.

what d'you mean — portable!



FEATHERWEIGHT—
no! A good portable x-ray unit is still quite a way off from the size and weight of a little camera. Dependable performance calls for plenty of power and solid strength.

HEAVYWEIGHT—
no! Excess poundage and a bewildering confusion of parts are definitely a thing of the past. A real portable shouldn't need a truck or a trailer, or a structural engineer to put it together and take it apart.



What we really have in mind is the *Westinghouse Portable D*. Mechanically it is amply sturdy for easy, accurate positioning without getting the jitters. Electrically it is so powerful that it competes with many a stationary diagnostic apparatus. Yet it weighs little enough that it can be carried about with comfort—and of course it is compact to fit very nicely into your car.

Certainly, we'd like to demonstrate it to you. If you'll mail the coupon your Westinghouse representative will be more than glad to arrange for it, at your convenience and without obligation.

Westinghouse X-Ray Co. Long Island City, N. Y.

Westinghouse X-Ray Company
21-16 43rd Avenue
Long Island City, New York

Please tell your representative to check with me for a convenient time to demonstrate your new Portable D diagnostic X-Ray unit.

Dr.

.....

STUDIES IN THE AVITAMINOSES



This page is the fifth of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the April 27 issue of The Journal of the American Medical Association.

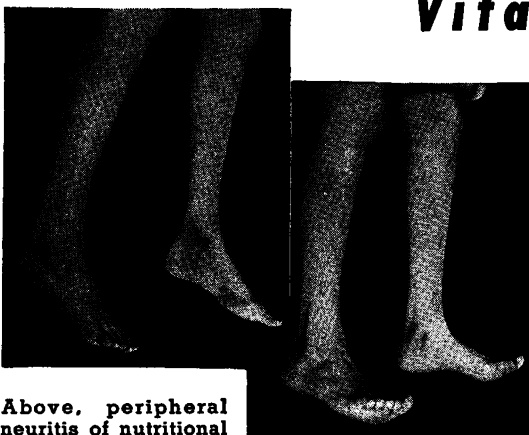
ONE of the specific lesions resulting from thiamin deprivation consists of degenerative changes in the myelin sheaths of nerve fibers. In peripheral nerves, the myelin breaks down into small globules and finally disappears, and the axis-cylinder undergoes atrophy and fragmentation. Degeneration has been described also in the spinal cord, especially in the posterior columns and anterior and posterior nerve roots, and in the posterior spinal ganglia and the anterior horn cells.

Nerve degeneration caused by vitamin B₁ deficiency. Marchi method of staining, showing deteriorated myelin as black dots in the fasciculi. (At right)



Nerve degeneration in same patient. Weigert stain; normal myelin sheaths in the microscopic section appear dark blue; degenerated nerve fibers do not take the stain. (Courtesy of H. M. Zimmerman, M.D., Yale University School of Medicine and the New Haven Hospital.)

The Neurologic Manifestations of Vitamin B₁ Deficiency



Above, peripheral neuritis of nutritional etiology; note limited dorsiflexion. At right, improvement in dorsiflexion after two and one-half weeks of thiamin chloride therapy. (Courtesy of Henry Field, Jr., M.D., University of Michigan.)

THE early manifestations of vitamin B₁ deficiency affecting peripheral nerves are pain and burning along the involved sensory neurons and impairment of motor nerve function. If the deficiency remains uncorrected, fragmentation of the axis-cylinders of motor nerves follows, leading to further loss of function and atrophy of the innervated muscles. Administration of thiamin chloride over a prolonged period slowly produces regeneration of the involved neurons. If complete degeneration of cells and axis-cylinders in the central nervous system has occurred, regeneration cannot take place.

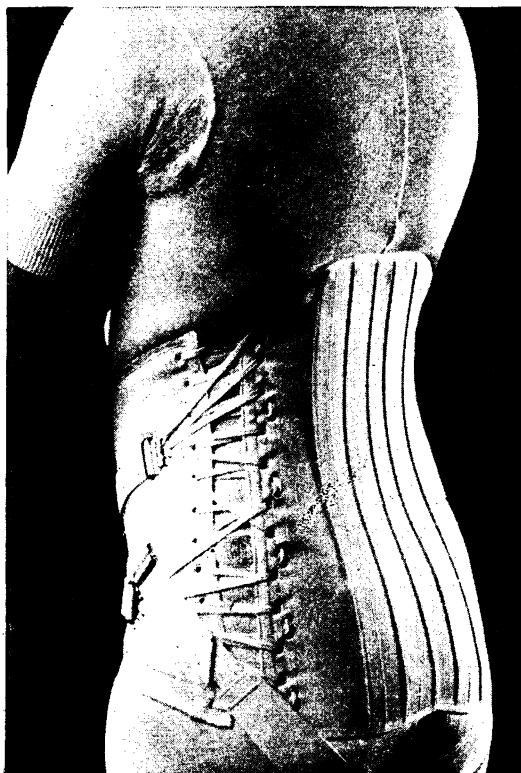


SUPPORT WITH BRACE FOR THE LOW BACK

Commenting on the increased likelihood of patients with spondylolisthesis lesions to suffer from industrial low back injury and on the pathology and symptoms of such injuries, an orthopedic surgeon* in a recent article continues, as follows: "... one begins by putting the patient to bed for anywhere from a few days to two weeks. Physiotherapy is used to give relief from pain and to strengthen the muscles of the back. Sometimes it is well to assure rest to the injured back by immobilization in a plaster jacket. When the patient gets out of bed one must provide him with a low back belt if the symptoms have been mild, or with a spinal brace if rigid support is needed. If, in spite of prolonged conservative treatment, the pain and weakness in the back and the disability continue, one must realize that permanent internal fixation is required."



CAMP SPINAL BRACE



CAMP LUMBOSACRAL SUPPORT

The Camp spinal brace (illustrated) is made of spring steel and comes in varying lengths; twelve, fourteen, sixteen and eighteen inch lengths.

According to the surgeon's preference, the brace may be used to extend over the curved lumbar spine in a straight manner or may be fashioned to fit the curve of the spine.

The brace may be incorporated in any of the Camp side-lacing, orthopedic supports.

*Samuel Kleinberg, M.D.
New York State Journal of Medicine
Volume 39, September 15, 1939

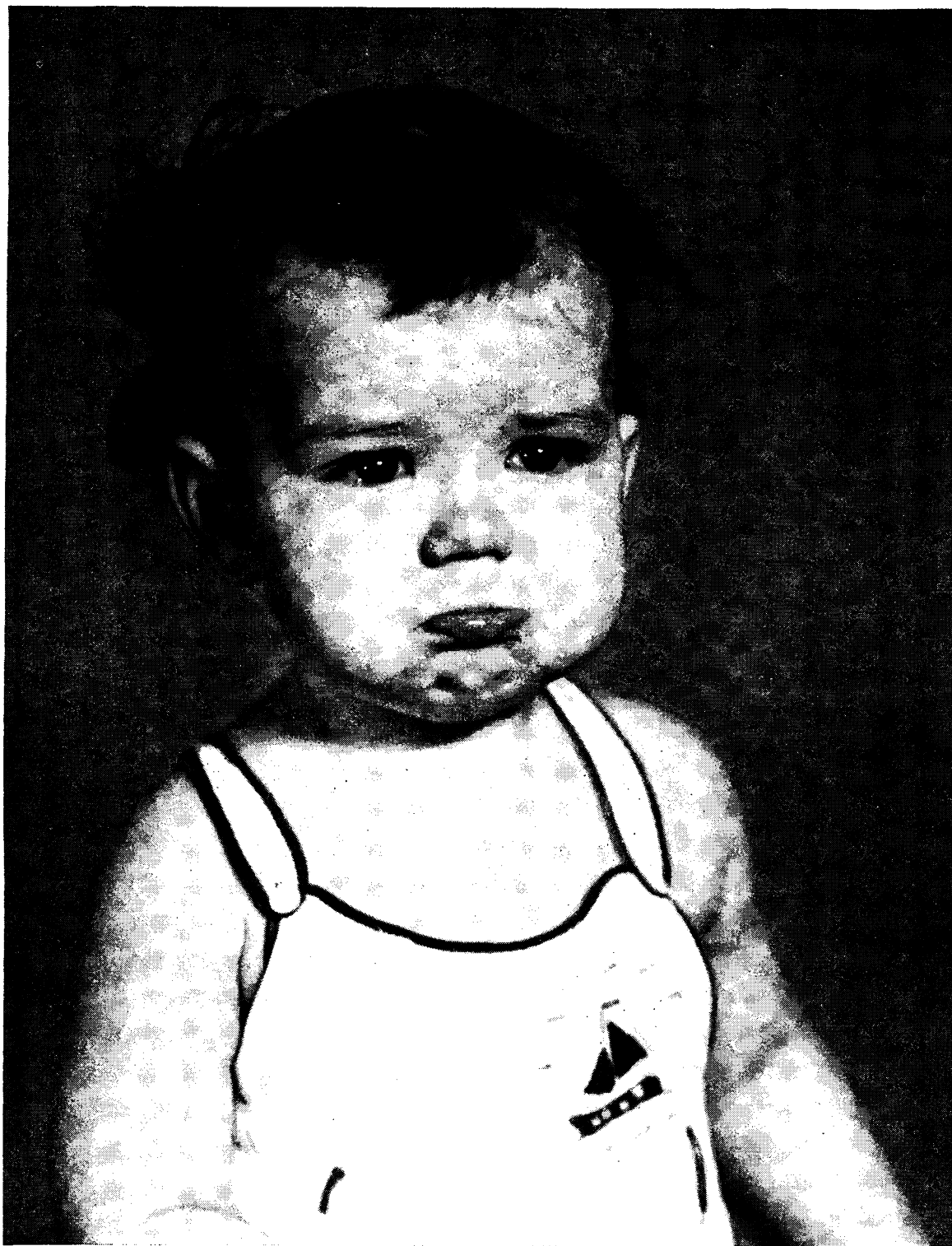


CAMP
TRADE MARK
Supports



**S. H. CAMP & COMPANY
JACKSON, MICHIGAN**

Offices in: New York; Chicago; Windsor, Ont.; London, Eng.
World's largest manufacturers of surgical supports



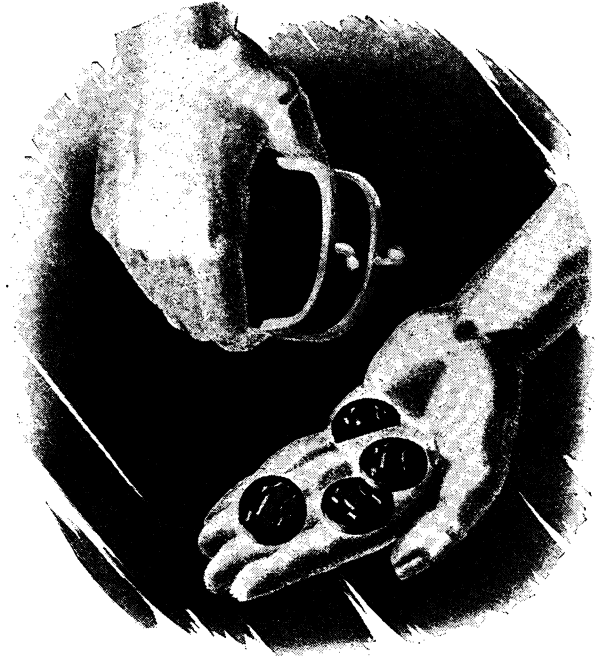
Copyright 1940, Mead Johnson & Co.

I WANT MORE PABLUM!

BABIES like the taste of Pablum, yet it furnishes more iron than does any other food in the child's daily diet. Investigations show that even such an iron-rich vegetable as spinach does not increase iron storage in the body, but that the iron in Pablum is present in available form.* Although Pablum is higher in total and in soluble iron, vegetables are also valuable in the child's diet, supplying vitamins, minerals and roughage.

*Bibliography on request. Mead Johnson & Company, Evansville, Indiana, U.S.A.

Pablum consists of wheatmeal (farina), oatmeal, wheat embryo, cornmeal, beef bone, brewers yeast, alfalfa leaf, sodium chloride and reduced iron



THE DIABETIC'S DOLLAR

Now Goes 28 Times Further

● Since April 1, the diabetic can buy as much Iletin (Insulin, Lilly) for 3.5 cents as he purchased in 1923 for \$1.00. Thirteen reductions in the price of Iletin (Insulin, Lilly) have resulted from large-scale production and improvement in marketing facilities.

ELI LILLY AND COMPANY

Principal Offices and Laboratories, Indianapolis, Indiana, U. S. A.

PERFECTED Containers AND Equipment

...ANOTHER RESPONSIBILITY OF LEADERSHIP

The VACOLITER

A Container-Dispenser with
10 Distinctive Advantages

A complete solution
container-dispenser

Embossed metal disc
identifies contents

Exclusive, 5-unit,
TAMPER-PROOF
closure... dia-
phragm gives positive
proof of vacuum

Annealed glass with
specially treated in-
ner surface insures
lasting quality

Permanently at-
tached band and bail
originated by Baxter
— make Vacoliter
more convenient



Calibration molded
in the glass

In removing seal,
operator is prompted
to check vacuum and
type of solution

Pear-shaped orifices
hold dispensing
equipment firmly

Serially numbered
label put on as ex-
clusive one-batch
operation—rigorously
checked for control

Air tube insulates
solution against
contact with incom-
ing air

Parenteral Solutions must be instantly available — so conveniently and dependably contained that delay or contamination can not occur. As a pioneer and leader in the field, Baxter has developed in the distinctive VACOLITER, with its exclusive visible index of vacuum, a container that renders hospital, physician and nurse a completely satisfactory service.

Baxter's Parenteral Dextrose and Saline Solutions are pure, uniform, stable—SAFE—and available everywhere in wide variety. To the hospital, they represent the utmost in true economy. Descriptive bulletin on request.

In the highly perfected TRANSFUSO-VAC* container and its accessories, Baxter has given the profession a widely accepted new technique of indirect BLOOD TRANSFUSION that bridges time and space with unbroken asepsis. With it one operator can perform the entire sequence — Drawing, Citrating, Transporting, Storing, Filtering and Infusion — with no break in asepsis and no waste of blood. On request, professional bulletin discussing the ease, certainty and economy of this new technique of blood transfusion.

The TRANSFUSO-VAC

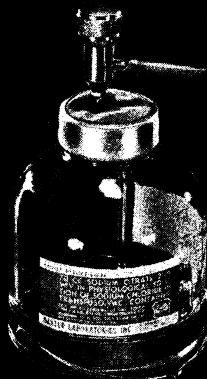
A complete closed tech-
nique for Blood Transfusion

Six sizes and solu-
tion types available,
identified by batch
and inspection refer-
ence on label

Solution is sterile
and pyrogen-free
2½% sodium citrate
in physiological
solution of sodium
chloride*

Container embodies
original, exclusive
features of Vacoliter,
with others of im-
portance

Second label pro-
vides for record of
contents in use



Vacuum provided
will draw desired
quantity of blood
and leave adequate
vacuum, visibly
proved by dimple in
diaphragm

Tamper-proof cap
indicates 250, 500 or
750 cc. use

X clearly identifies
site for insertion of
needle

Micrometer-fitted
Valve gives finger-tip
control of blood flow

Stainless steel Filter-
drip prevents passage
of blood clots

Tube and Needle Sets
adapt Transfuso-Vac
to varying needs

DON BAXTER, INC.

RESEARCH AND PRODUCTION LABORATORIES

GLENDAL, CALIFORNIA

DISTRIBUTORS:

The C. A. Bischoff Surgical Co. Oakland
The Denver Fire Clay Co. Denver-Salt Lake City-El Paso
Great Falls Drug Co. Great Falls
McKesson & Robbins Billings
Missoula Drug Company Missoula

Ohio Chemical & Manufacturing Co. San Francisco
Shaw Supply Co., Inc. Tacoma-Seattle
Shaw Surgical Co. Portland
Southwestern Surgical Supply Co. Phoenix
Spokane Surgical Supply Company Spokane

VITAMIN K—A NEW FAT-SOLUBLE VITAMIN

● In 1935, the existence of a new fat-soluble vitamin—distinct from vitamins A, D, and E—was demonstrated. A deficiency of this vitamin in the diet of chicks was found to lead to a disease characterized by anemia, hemorrhages, and prolonged clotting time of the blood (1). The name of this new factor was derived from the Danish designation "Koagulations-Vitamin".

The chemical, physical, and biological properties of vitamin K have been well established (1, 2, 3, 4). Besides vitamins K₁ and K₂—isolated from natural materials—an homologous series of synthetic compounds has been found to possess antihemorrhagic properties. As the vitamin K unit, the antihemorrhagic activity of 1.0 microgram of pure 2-methyl-1, 4-naphthoquinone has been suggested; however, further research seems necessary before final selection of the vitamin K unit is made (4).

Clinical investigations have also established the importance of vitamin K in the clotting of human blood (3, 4). It has been demonstrated that avitaminosis K results in a prothrombin deficiency, with resultant prolonged blood clotting time. Al-

though hypoprothrombinemia can frequently be attributed to inadequate intestinal absorption of vitamin K or to hepatic injury, other causative factors are also recognized; important among these is a deficiency of vitamin K in the diet.

The distribution of vitamin K in foods also has been studied. It has been found that vitamin K activity appears to be concentrated in the photosynthetic portion of the plant (3). Research during the next several years should add greatly to our knowledge of the extent to which this factor occurs in common American foods.

Discovery of vitamin K is another step towards establishment of the complete nutritive requirements of man. Recognition of this new factor, however, suggests that other factors—as yet unknown—will undoubtedly be found essential to man. Consequently, the wisdom of a varied diet to supply the identified, as well as the unidentified, essential nutrients, should be immediately evident. The large number of canned foods, available at all seasons, may well be included in diets designed to promote optimum nutrition.

AMERICAN CAN COMPANY

230 Park Avenue, New York, N. Y.

REFERENCES

1. 1937. Annual Review of Biochemistry, 6, 364.
2. 1939. Ibid., 8, 428.
3. 1939. J. Am. Med. Assoc., 112, 1457.
4. 1939. Ibid., 113, 2056.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the fifty-ninth in a series, which summarizes, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

Over Sixty Years of **PRINTING SERVICE**

THE law of compensation, as applied to present-day business, is as rewarding as it is ruthless, depending entirely upon the principles, standards and practices followed. The survival and progress of any business is dependent upon and measured by its consistent conduct, its policy and faith-keeping. That which deserves to live—lives.

THE JAMES H. BARRY COMPANY has no greater eulogist than time. Over sixty years of steady progress . . . in a highly competitive business . . . from the nucleus of a one-man print shop in 1879, to one of the foremost printing plants in Northern California in 1940, is achievement of which we are proud. We make the years count.

The James H. Barry Company

PRINTERS AND PUBLISHERS
170 SOUTH VAN NESS AVENUE
SAN FRANCISCO • UNDERHILL 7780

In Depressive States

Our recent publication, "Benzedrine Sulfate Tablets in Depressive Conditions"—examined and found acceptable by the Council on Pharmacy and Chemistry of the American Medical Association—summarizes the findings of leading investigators as to the present status of the drug in this field. Excerpts are cited from the articles listed below:

Guttmann, E. and Sargent, W.: *Observations on Benzedrine*—Brit. Med. J., 1:1013, May 15, 1937.

Nathanson, M. H.: *The Central Action of Beta-aminopropylbenzene (Benzedrine)*—J.A.M.A., 108:528, Feb. 13, 1937.

Myerson, A.: *Effect of Benzedrine Sulfate on Mood and Fatigue in Normal and in Neurotic Persons*—Arch. Neurol. & Psychiat., 36:816, Oct., 1936.

Wilbur, D. L.; MacLean, A. R. and Allen, E. V.: *Clinical Observations on the Effects of Benzedrine Sulphate*—Proc. Staff Meet. Mayo Clin., 12:97, Feb. 17, 1937.

Woolley, L. F.: *The Clinical Effects of Benzedrine Sulphate in Mental Patients with Retarded Activity*—Psychiatric Quart., 12:66, January, 1938.

Davidoff, E. and Reifenstein, E. C., Jr.: *The Stimulating Action of Benzedrine Sulfate*—J.A.M.A., 108:1770, May 22, 1937.

Guttmann, E.: *The Effect of Benzedrine on Depressive States*—J. Ment. Sci., 82:618, Sept., 1936.

If you did not receive a copy, we shall be glad to mail one to you.

BENZEDRINE SULFATE TABLETS

Each 'Benzedrine Sulfate Tablet' contains amphetamine sulfate, S. K. F., 10 mg. (approximately 1/6 gr.)

SMITH, KLINE & FRENCH LABORATORIES
109 North Fifth Street, Philadelphia, Pa.

EST.  1841

Please send me a copy of your booklet, **BENZEDRINE SULFATE TABLETS IN DEPRESSIVE CONDITIONS.**

Name _____ M.D.

Street _____

City _____ State _____
BA



America's fastest-growing infant food now costs mothers much less

THANKS TO YOU, DOCTOR, the demand for Biolac has grown so that it is now possible to announce a 17% price reduction in California on this liquid, modified milk. Biolac is now available to your mothers at only 19¢ a can instead of 23¢, as formerly.

Biolac is a selected cow's milk, adjusted not only to resemble the nutritional properties of breast milk, but to compensate for the *biological differences* between cow's milk and breast milk.

Thus, Biolac has a reduced-fat, higher-

protein level, and contains lactose in Nature's own equilibrium of 60% beta, 40% alpha lactose. Vitamins A, B₁, D, and iron are provided at accepted prophylactic levels.

Biolac assures a sterile formula—even including carbohydrates—as it requires only simple dilution with boiled water. The simplicity and ease with which Biolac formulas can be prepared is a godsend to busy, distracted mothers, minimizes formula errors. It is sold only in drug stores. No feeding directions are given to the laity.

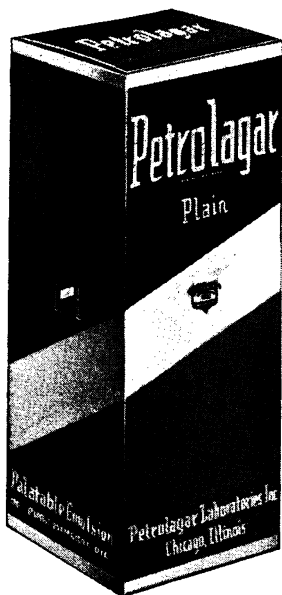
Biolac

A PRODUCT OF THE BORDEN COMPANY





Post Operatively...



★ ★ Petrolagar

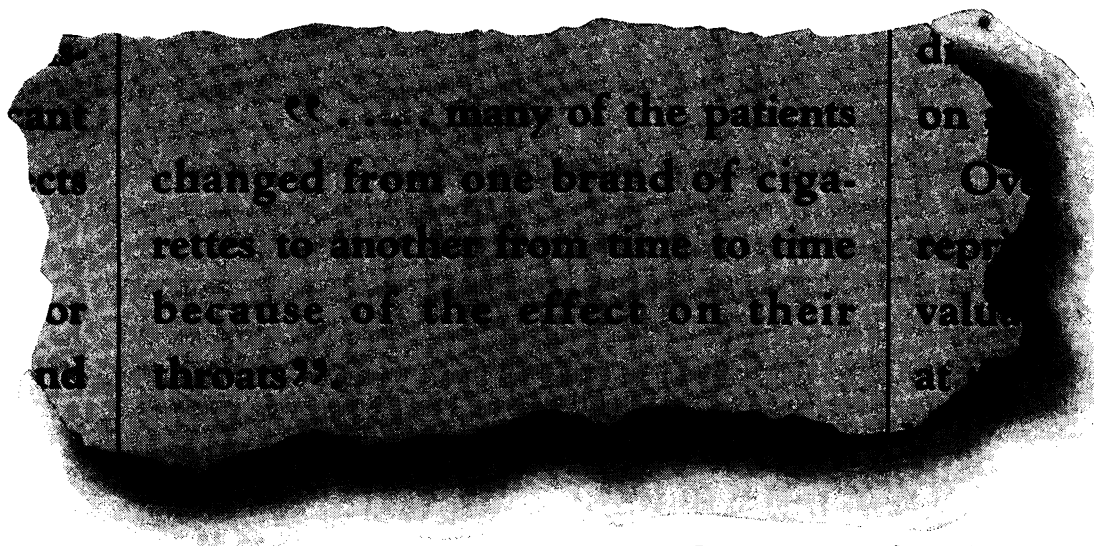
The mild action of Petrolagar helps relieve bowel distension after surgery and aids in the restoration of normal Bowel Habit Time.

For physicians' convenience, Petrolagar is available in the economical Hospital Dispensing Unit—a quantity sufficient for the average ten day period of confinement. It is pleasant to take—not likely to leak like plain mineral oil.

Prescribe Petrolagar for hospitalized patients. It contributes to their comfort.



Petrolagar . . . liquid petrolatum 65 cc. emulsified with 0.4 Gm. agar in a menstruum to make 100 cc.



*Laryngoscope, Feb. 1935
Vol. XLV, No. 2, 149-154*

ON GUIDING PATIENTS IN THEIR CIGARETTE SMOKING

It is certainly worth knowing that tests reported in the same paper showed every case of irritation of the nose and throat due to smoking *cleared completely or definitely improved* when smokers changed to Philip Morris.

Write for reprints of published studies on the comparative irritant properties of cigarettes. Address Philip Morris & Co., Ltd., Inc., 119 Fifth Avenue, New York.

Karo Formulas for Safe Weaning

Karo . . 2 tsps.
Milk . . 6 ozs.
Water . . 2 ozs.

This is a formula for *gradual weaning*. The KARO mixture is first offered in place of one breast feeding for a week, then in place of two breast feedings the next week until complete weaning.

Karo . . 3 tblsps.
Milk . . 24 ozs.
Water . . 8 ozs.

This is a formula for *immediate weaning*. The KARO mixture is divided into 4 feedings, 8 ounces each, at 4-hour intervals, and gradually concentrated as the baby becomes adjusted to bottle feeding.



*Inquiries from Physicians are invited
...for further information write*
CORN PRODUCTS SALES COMPANY
17 BATTERY PLACE • NEW YORK CITY